



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,659	03/05/2004	Andrew P. Kramer	GUID.150DIV4	3143
7590 12/28/2007 Attn: Mark A. Hollingsworth Crawford Maunu PLLC Suite 390 1270 Northland Drive St. Paul, MN 55120			EXAMINER EVANISKO, GEORGE ROBERT	
			ART UNIT 3762	PAPER NUMBER
			MAIL DATE 12/28/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/796,659

Applicant(s)

KRAMER, ANDREW P.

Examiner

George R. Evanisko

Art Unit

3762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8, 11, 12, 14-17, 19-27, 29-34, 36-40, 43 and 44 is/are pending in the application.
- 4a) Of the above claim(s) 3, 4, 10, 14-16, 20, 22, 23, 29, 33, 34, 37 and 44 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5-8, 11-12, 17, 19, 21, 24-27, 30-32, 36, 38-40 and 43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 10/31/07.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/31/07 has been entered.

### ***Election/Restrictions***

Claims 3, 4, 10, 14-16, 20, 22, 23, 29, 33-34, 37, and 44 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected species/inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 5/15/06.

### ***Claim Rejections - 35 USC § 102/103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3762

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5-8, 11, 17, 21, 24-27, 30, 36, 38-40, and 43 are rejected under 35

U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sholder (5653738).

Sholder states that the stimulation pulse is provided to the “ventricles” (e.g. col. 7, line 3) and that the system interfaces with the “ventricles” (e.g. col. 9, lines 15-25) and therefore provides for pacing therapy to the left and right ventricles. In addition, when a stimulation pulse is delivered to a ventricle it will cause both ventricles to be paced and therefore will provide pacing therapy to the left and right ventricles. Finally, Sholder discloses a similar amount of disclosure as the applicant in that Sholder and the applicant both just use the word “ventricles” to provide support for pacing the left and right ventricles and neither provide any more disclosure than that.

Sholder also discloses the use his system operating in a DDI mode which will interrupt, initiate or inhibit pulses based on the absence or presence of a sensed event, the use of modifying the PVARP, detecting intrinsic ventricular events/PVC's that disrupt ventricular pacing and/or disruption of ventricular pacing during delivery of the therapy (e.g. cols. 12, 13, abstract), adjusting/increasing/decreasing the PVARP and for two or more cycles (e.g. figure 9, col. 16), minimizing/avoiding PMTs (e.g. col. 3, line 67), and responsive to the detected disruption, modifying the pacing timing sequence (e.g. cols. 13-17).

In the alternative, Sholder discloses the claimed invention except for the pacing therapy being delivered to the left and right ventricles and avoiding PMT. It would have been obvious to

Art Unit: 3762

one having ordinary skill in the art at the time the invention was made to modify the pacing system and method as taught by Sholder, with the delivery of the pacing therapy to the left and right ventricles and avoiding PMT since it was known in the art that pacing systems deliver therapy to the left and right ventricles to improve the hearts contraction pattern and augment the movement of blood through the heart and since it was known that pacing systems should be operated to avoid PMT so that a tachycardia is not produced.

Claims 12, 19, 31, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sholder. Sholder discloses the claimed invention but Sholder does not specifically mention that he restores the pacing following a transient increase in heart rate above a MTR, detects a PMT event and inhibits atrial tracking based on the event, or restores the ventricular pacing as an intrinsic atrial rate decreases below a MTR. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the pacing system and method as taught by Sholder with restoring the pacing following a transient increase in heart rate above a MTR, detecting a PMT event and inhibits atrial tracking based on the event, or restoring the ventricular pacing as an intrinsic atrial rate decreases below a MTR since it was known in the art that pacing systems and methods use: restoring of the pacing following a transient increase in heart rate above a MTR in order to prevent the heart from pacing at a too fast rate when the rate increases above the MTR and then return to normal pacing when the heart rate decreases below the MTR to decrease PMTs; detecting a PMT event and inhibiting atrial tracking based on the event to prevent a PMT; and restoring of the ventricular pacing as an intrinsic atrial rate decreases below a MTR in order to prevent the heart from pacing at a too fast rate when the rate

Art Unit: 3762

increases above the MTR and then return to normal pacing when the heart rate decreases below the MTR to decrease PMTs.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2, 5-8, 11-12, 17, 19, 21, 24-27, 30-32, 36, 38-40, and 43 provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 5, 14, 16, 17, 19, 22, 23, 28, 29, and 34 of copending Application No. 10/794323 and over claims 1, 2, 6-10, 15-19, 23-27, 31-34, 38-45, 47-49, 53, and 54 of copending Application No. 10/7941511. The claims of the copending applications are narrower and meet the limitations of the broader application claims. This is a provisional obviousness-type double patenting rejection.

***Response to Arguments***

Applicant's arguments filed 11/30/07 have been fully considered but they are not persuasive. The argument that Sholder teaches detection of PMT/PMRR, but these conditions do not disrupt ventricular pacing is not persuasive. The term "disrupted" taken in its broadest reasonable interpretation means "to interrupt the normal course", "disturb", "to prevent something from continuing as usual or expected". Sholder's detection of PMT/PMRR and/or detection of the P-V interval exceeding a prescribed interval (e.g. abstract, cols. 12 and 13) is a detection of disrupted ventricular pacing since it is a detection of an interruption of the normal course of pacing or since it is a detection of an event that prevents the pacing from continuing as usual or expected. The normal course or usual or expected pacing would be pacing at a normal rate and not one that causes PMT/PMRR. The argument that the applicant's "modified pacing timing sequence may include a decreased PVARP" is not persuasive since this feature is not in claim 1. The argument that Sholder does not modify the pacing timing sequence responsive to the detection of disrupted ventricular pacing is not persuasive since Sholder describes how the pacing timing sequence is modified based on the detected disruption, for example, in columns 13-17. NOTE the line through reference in the IDS due to the incorrect patent number for the Kieval reference.


***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George R. Evanisko whose telephone number is 571 272 4945. The examiner can normally be reached on M-F 6:30-5:00.

Art Unit: 3762

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on 571 272 4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
George R Evanisko  
Primary Examiner  
Art Unit 3762

12/23/7

GRE  
12/23/07